

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for filtrating a ~~polymer~~ cellulose ester solution by using a filter medium,[[,]] said filter medium having many pores for trapping undissolved particles of an at least predetermined size, and the filter medium having hydroxyl groups and carboxyl groups directly ~~adhere~~ adhered to a surface of the filter medium, said ~~medium~~ method comprising:

dissolving a ~~polymer~~ cellulose ester in a solvent to prepare said ~~polymer~~ cellulose ester solution;

adding to said ~~polymer~~ cellulose ester solution at least one sort of acidic materials for preventing a hydrogen atom in said carboxyl group from being ionized before passing said ~~polymer~~ cellulose ester solution through said filter medium; and

passing said ~~polymer~~ cellulose ester solution through said filter medium.

2. (Previously Presented) The method as claimed in claim 1, wherein said acidic material reduces a tendency of said undissolved particles under the predetermined size from adhering to the pore wall of said pore.

3. (Currently Amended) The method as claimed in claim 1, wherein said acidic material is further characterized by having an ionization constant (pKa) is of at most 4.8 at 25 °C in an aqueous solution in which said acidic material is dissolved in water.

4. (Cancelled)

5. (Previously Presented) The method as claimed in claim 3, wherein said acidic material is at least one of carboxylic acid, polycarboxylic acid and derivatives of said polycarboxylic acid, and said derivative includes salt form.

6. (Previously Presented) The method as claimed in claim 5, wherein each molecule of said derivatives of said polycarboxylic has at least one carboxyl group and at least one salt form of said carboxylate group, and is at least one of following substances:

- an ester of polycarboxylic acid having fatty hydrocarbon structure;
- an amide of polycarboxylic acid having fatty hydrocarbon structure;
- an ester of polycarboxylic acid having aromatic hydrocarbon structure;
- an amide of polycarboxylic acid having aromatic hydrocarbon structure;
- an ester of polycarboxylic acid having heterocyclic hydrocarbon structure; or
- an amide of polycarboxylic acid having heterocyclic hydrocarbon structure.

7. (Previously Presented) The method as claimed in claim 6, wherein said filter medium is formed of at least one of natural fiber, regenerated fiber, semi-synthetic fiber, synthetic fiber, and metal fiber.

8. (Previously Presented) The method as claimed in claim 7, wherein said filter medium is formed of cellulose fibers, and substituents or acidic groups are substituted for hydrogen atoms in at least one of plural groups of said cellulose fiber.

9. (Previously Presented) The method as claimed in claim 8, wherein the predetermined size is in the range of 1 to 10 μm .

10. (Currently Amended) The method as claimed in claim 9, wherein a flow rate of said ~~polymer~~ cellulose ester solution is constant while said polymer solution is filtered.

11. (Previously Presented) The method as claimed in claim 10, wherein said flow rate is in the range of 50 – 250 $\text{L}/(\text{m}^2 \cdot \text{hr})$.

12. (Cancelled)

13. (Previously Presented) The method as claimed in claim 12, wherein chlorinated organic solvent is used as a main solvent of said solvent.

14. (Previously Presented) The method as claimed in claim 12, wherein nonchlorinated organic solvent is used as a main solvent of said solvent.

15. (Currently Amended) A method for filtrating a polymer solution by using a filter medium, [[,]] said filter medium having many pores for trapping undissolved particles of an at least predetermined size and said filter medium having hydroxyl groups and carboxyl groups directly ~~adhere~~ adhered to a surface of the filter medium, said method comprising:

substituting one or more substituents or acidic groups for hydrogen atoms in at least several ones of plural hydroxyl groups of said ~~cellulose-fiber~~ filter medium before passing said polymer solution through said filter medium;

dissolving a polymer in a solvent to prepare said polymer solution; and

passing said polymer solution through said filter medium.

16. (Original) A method as claimed in claim 15, wherein said polymer is cellulose ester.

17. (Previously Presented) The method as claimed in claim 15, wherein said substituents or acidic groups reduce said undissolved particles under the predetermined size from adhering to a pore wall of said pore.

18. (Previously Presented) The method as claimed in claim 17, wherein said solvent is prepared in steps of:

adding a predetermined volume of water to a sample solvent which is sampled from said solvent, said predetermined volume being from 0.1 to 10 times as large as that of said sample solvent;

extracting water-soluble elements in said sample solvent by said water;
measuring a hydrogen ion concentration of said water; and
adjusting a hydrogen ion concentration of said solvent such that the hydrogen ion concentration of said water becomes predetermined value.

19. (Previously Presented) The method as claimed in claim 18, wherein said substituent is at least one of following groups:

saturated hydrocarbon or derivative thereof;
nonsaturated hydrocarbon or derivatives thereof; and
aromatic hydrocarbon or derivatives thereof.

20. (Previously Presented) The method as claimed in claim 18, wherein said acidic atomic group is at least one of following groups:

carboxyl group;
salt form of carboxyl group;
sulfonic acid group; and
salt form of sulfonic acid group.

21. (Previously Presented) The method as claimed in claim 20, wherein the predetermined size is 1 - 10 μm .

22. (Previously Presented) The method as claimed in claim 21, wherein a flow rate of said polymer solution is constant during the filtration of said polymer solution.

23. (Previously Presented) The method as claimed in claim 22, wherein said flow rate is in the range of $50 - 250 \text{ L}/(\text{m}^2 \cdot \text{hr})$.

24. (Currently Amended) The method as claimed in ~~claim 32~~ claim 22, wherein said polymer is cellulose ester.

25. (Previously Presented) The method as claimed in claim 24, wherein chlorinated organic solvent is used as a main solvent of said solvent.

26. (Previously Presented) The method as claimed in claim 24, wherein nonchlorinated organic solvent is used as a main solvent of said solvent.

27. (Previously Presented) The method as claimed in claim 17, wherein said polymer solution is used for producing a polymer film in a solution casting method.

28. (Previously Presented) The method as claimed in claim 27, wherein said solution casting method is a co-casting method in which plural polymer solutions are cast simultaneously.

29. (Previously Presented) The method as claimed in claim 27, wherein said polymer film is used as a protective film for a polarizing filter.

30. (Previously Presented) The method as claimed in claim 29, wherein said polarizing filter is used in a liquid crystal display.

31. (Previously Presented) The method as claimed in claim 27, wherein said polymer film is used for an optical compensation film.

32. - 65. (Cancelled)

66. (Previously Presented) The method as claimed in claim 1, wherein the hydroxyl groups and carboxyl groups are directly attached to a pore wall of the filter medium.